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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,779	03/29/2004	Woo-Seog Park	2060-3-60	5006

35884 7590 07/09/2009  
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EXAMINER
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DAGLAWI, AMAR A

ART UNIT	PAPER NUMBER
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2618

NOTIFICATION DATE	DELIVERY MODE
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07/09/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspto@hlaw.com  
ip.hlaw@gmail.com  
ip.hlaw@live.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/812,779	<b>Applicant(s)</b> PARK, WOO-SEOG	
	<b>Examiner</b> AMAR DAGLAWI	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 35-40 and 43-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 35-40 and 43-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☒ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/22/2009 has been entered.

### ***Response to Amendment***

2. Claims 35-40 and 43-46 are pending in the current application. Claims 35 and 40 are amended. Claims 41 and 42 are cancelled.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 35-40, 43-46 have been considered but are moot in view of the new ground(s) of rejection.

4.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 35-39, 40, 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted background art in view of Barsellotti (US 4,604,741) and Mikki (US 5,181,246).

With respect to claim 35, Applicant's admitted background art teaches A method of controlling quality of output produced by a multifunction device (MFD) capable of producing both sound and vibration in response to receiving electronic signals, wherein the MFD is embedded in a mobile communication system, the method comprising:

Determining whether the mobile communication system is in a first, second or third state (Fig.2, par [0012-0017]); [The processor unit determines the state either voice, ring or vibration].

in the first state, amplifying voice signals in an audio processor of the mobile communication system (Fig.2, par [0012-0017]) **but fails to teach filtering the amplified voice signals removing low frequency resonance components in the amplified voice signals that fall below a first threshold by way of filtering, and**

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**providing the amplified, filtered audio signals to the MFD which is taught in the same field of endeavor by Barsellotti (see col.5, lines 5-35, col.6, lines 30-45).**

**It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of applicant's admission of prior art the MFD device with the low pass filter of Barsellotti so as to filter amplified voice signals.**

in the second state, amplifying ring tone signals generated in an amplifier external to the audio processor (Fig.2, par [0012-0017]) **but fails to teach filtering the amplified ring tone signals removing low frequency resonance components in the amplified ring tone signals that fall below a first threshold by way of the filtering, and providing the amplified, filtered ring tone signals to the MFD which is taught in the same field of endeavor by Miki (US 5,181,246) (See col.1, lines 10-35).**

**It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of applicant's admission of prior art (the MFD device) with the filter and ring modulator of Mikki so as to filter the output signal of the ring modulator to a lower side band alone.**

and in the third state, amplifying a vibration signal the amplifier external to the audio processor and providing the amplified, non-filtered the vibration signal to the MFD by way of bypassing the filtering (Fig.2, par [0012-0017]).

With respect to claim 36, applicant's admitted background art in view of Barsellotti and Mikki further teaches the first, second, third states are set by a user of

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the mobile communication system (background art, Fig.2, par [0012-0017]) [the processor unit sets the state either voice, ring or vibration].

With respect to claim 37, applicant's admitted background art in view of Barsellotti and Mikki further teaches the MFD produces an audio voice in the state (background art, Fig.2, par [0012-0013]).

With respect to claim 38, applicant's admitted background art further teaches the MFD produces a ring tone in the second state (background art, Fig.2, par [0012-0016]).

With respect to claim 39, applicant's admitted background further teaches a user sets the MFD to produce a vibration in the third state (background art, Fig.2, par [0016]).

With respect to claim 40, applicant's admitted background art teaches A apparatus for controlling quality of output produced by a multifunction device (MFD) capable of producing both sound and vibration in response to receiving electronic signals, wherein the MFD is embedded in a mobile communication system, the apparatus comprising: An audio processor responsive for determining whether the mobile communication system is in a first, second or third state and amplifying voice signals in the first state and an amplifier external to the voice processor for amplifying audio signals in the second and third state (Fig.2, par [0012-0017]) and an amplified non-filtered vibration signal to the MFD in the third state (Fig.2, par [0012-0017]) [The processor unit determines the state either voice, ring or vibration].

However applicant's admission of prior art fails to teach **filtering the amplified voice signals removing low frequency resonance components in the amplified**

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**voice signals that fall below a first threshold by way of filtering in the first and second state and a switch for providing amplified filtered voice signals to the MFD in the first state which is taught in the same field of endeavor by Barsellotti (see col.5, lines 5-35, col.6, lines 30-45).**

**It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of applicant's admission of prior art the MFD device with the low pass filter of Barsellotti so as to filter amplified voice signals.**

**Also, applicant's admission of prior art fails to teach amplified, filtered ring tone signals to the MFD in the second state which is taught in the same field of endeavor by Miki (US 5,181,246) (See col.1, lines 10-35).**

**It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of applicant's admission of prior art (the MFD device) with the filter and ring modulator of Mikki so as to filter the output signal of the ring modulator to a lower side band alone.**

With respect to claim 43, applicant's admitted background art in view of further teaches the first, second, third states are set by a user of the mobile communication system (background art, Fig.2, par [0012-0017]) [the processor unit sets the state either voice, ring or vibration].

With respect to claim 44, applicant's admitted background art in view of Barsellotti further teaches the MFD produces an audio voice in the first state (background art, Fig.2, par [0012-0013]).

With respect to claim 45, applicant's admitted background art further teaches the MFD produces a ring tone in the second state (background art, Fig.2, par [0012-0016]).

With respect to claim 46, applicant's admitted background further teaches a user sets the MFD to produce a vibration in the third state (background art, Fig.2, par [0016]).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMAR DAGLAWI whose telephone number is (571)270-1221. The examiner can normally be reached on Monday- Friday (7:30 AM- 5:00 AM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NGUYEN DUC can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amar Daglawi  
Examiner  
Art Unit 2618

/Amar Daglawi/  
Examiner, Art Unit 2618

/Duc Nguyen/

Supervisory Patent Examiner, Art Unit 2618